

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A polypeptide isolated epitope, comprising a component selected from the group consisting of:
 - (i) a polypeptide epitope having the sequence as disclosed in TABLE 1B;
 - (ii) an epitope cluster comprising the polypeptide of (i);
 - (iii) a polypeptide having substantial similarity to (i) or (ii);
 - (iv) a polypeptide having functional similarity to any of (i) through (iii); and
 - (v) a nucleic acid encoding the polypeptide of any of (i) through (iv).
2. (Currently Amended) The polypeptide epitope of claim 1, wherein the polypeptide is immunologically active.
3. (Currently Amended) The polypeptide epitope of claim 1, wherein the polypeptide is less than about 30 amino acids in length.
4. (Currently Amended) The polypeptide epitope of claim 1, wherein the polypeptide is 8 to 10 amino acids in length.
5. (Currently Amended) The polypeptide epitope of claim 1, wherein the substantial or functional similarity comprises addition of at least one amino acid.
6. (Currently Amended) The polypeptide epitope of claim 5, wherein the at least one additional amino acid is at an N-terminus of the polypeptide.
7. (Currently Amended) The polypeptide epitope of claim 1, wherein the substantial or functional similarity comprises a substitution of at least one amino acid.
8. (Currently Amended) The polypeptide epitope of claim 1, the polypeptide having affinity to an HLA-A2 molecule.
9. (Currently Amended) The polypeptide epitope of claim 8, wherein the affinity is determined by an assay of binding.
10. (Currently Amended) The polypeptide epitope of claim 8, wherein the affinity is determined by an assay of restriction of epitope recognition.
11. (Currently Amended) The polypeptide epitope of claim 8, wherein the affinity is determined by a prediction algorithm.
12. (Currently Amended) The polypeptide epitope of claim 1, the polypeptide having affinity to an HLA-B7 or HLA-B51 molecule.

13. **(Currently Amended)** The polypeptide epitope of claim 1, wherein the polypeptide is a housekeeping epitope.

14. **(Currently Amended)** The polypeptide epitope of claim 1, wherein the polypeptide corresponds to an epitope displayed on a tumor cell.

15. **(Currently Amended)** The polypeptide epitope of claim 1, wherein the polypeptide corresponds to an epitope displayed on a neovasculature cell.

16. **(Currently Amended)** The polypeptide epitope of claim 1, wherein the polypeptide is an immune epitope.

17. **(Currently Amended)** The polypeptide epitope of claim 1, wherein the polypeptide is encoded by a nucleic acid.

18. **(Currently Amended)** A composition comprising the polypeptide epitope of claim 1 and a pharmaceutically acceptable adjuvant, carrier, diluent, or excipient.

19. **(Previously Presented)** The composition of claim 18, where the adjuvant is a polynucleotide.

20. **(Previously Presented)** The composition of claim 19 wherein the polynucleotide comprises a CpG dinucleotide.

21. **(Previously Presented)** The composition of claim 18, wherein the adjuvant is encoded by a polynucleotide.

22. **(Previously Presented)** The composition of claim 18 wherein the adjuvant is a cytokine.

23. **(Previously Presented)** The composition of claim 23 wherein the cytokine is GM-CSF.

24. **(Previously Presented)** The composition of claim 18 further comprising a professional antigen-presenting cell (pAPC).

25. **(Previously Presented)** The composition of claim 18, further comprising a second epitope.

26. **(Previously Presented)** The composition of claim 25, wherein the second epitope is a polypeptide.

27. **(Previously Presented)** The composition of claim 25, wherein the second epitope is a nucleic acid.

Appl. No. : 10/657,022
Filed : September 5, 2003

28. **(Previously Presented)** The composition of claim 25, wherein the second epitope is a housekeeping epitope.

29. **(Previously Presented)** The composition of claim 25, wherein the second epitope is an immune epitope.

30. **(Previously Presented)** A recombinant construct comprising the nucleic acid of Claim 1.

31. **(Previously Presented)** The construct of claim 30, further comprising a plasmid, a viral vector, a bacterial vector, or an artificial chromosome.

32. **(Previously Presented)** The construct of claim 30, further comprising a sequence encoding at least one feature selected from the group consisting of a second epitope, an IRES, an ISS, an NIS, and ubiquitin.

33. **(Previously Presented)** A composition comprising at least one component selected from the group consisting of the epitope of claim 1; a composition comprising the polypeptide or nucleic acid of Claim 1; a composition comprising an isolated T cell expressing a T cell receptor specific for an MHC-peptide complex, the complex comprising the polypeptide of claim 1; a recombinant construct comprising the nucleic acid of Claim 1; an isolated T cell expressing a T cell receptor specific for an MHC-peptide complex, the complex comprising the polypeptide of claim 1; a host cell expressing a recombinant construct comprising a nucleic acid encoding a T cell receptor binding domain specific for an MHC-peptide complex and a composition comprising the same, and a host cell expressing a recombinant construct comprising the nucleic acid of claim 1 and a composition comprising the same; with a pharmaceutically acceptable adjuvant, carrier, diluent, or excipient.

34. **(Previously Presented)** A method of treating an animal, comprising:
administering to an animal the composition of claim 33.

35. **(Previously Presented)** The method of claim 34, wherein the administering step comprises a mode of delivery selected from the group consisting of transdermal, intranodal, perinodal, oral, intravenous, intradermal, intramuscular, intraperitoneal, mucosal, aerosol inhalation, and instillation.

36. **(Previously Presented)** The method of claim 34, further comprising a step of assaying to determine a characteristic indicative of a state of a target cell or target cells.

37. **(Previously Presented)** The method of claim 36, comprising a first assaying step and a second assaying step, wherein the first assaying step precedes the administering step, and wherein the second assaying step follows the administering step.

38. **(Previously Presented)** The method of claim 37, further comprising a step of comparing the characteristic determined in the first assaying step with the characteristic determined in the second assaying step to obtain a result.

39. **(Previously Presented)** The method of claim 38, wherein the result is selected from the group consisting of: evidence of an immune response, a diminution in number of target cells, a loss of mass or size of a tumor comprising target cells, a decrease in number or concentration of an intracellular parasite infecting target cells.

40. **(Currently Amended)** A method of making a vaccine, comprising:

combining at least one component selected from the group consisting of the polypeptide epitope of claim 1; a composition comprising the polypeptide or nucleic acid of Claim 1; a composition comprising an isolated T cell expressing a T cell receptor specific for an MHC-peptide complex, the complex comprising the polypeptide of claim 1; a composition comprising a host cell expressing a recombinant construct, the construct comprising the nucleic acid of claim 1, or the construct encoding a protein molecule comprising the binding domain of a T cell receptor specific for an MHC-peptide complex; a recombinant construct comprising the nucleic acid of Claim 1; an isolated T cell expressing a T cell receptor specific for an MHC-peptide complex, the complex comprising the polypeptide of claim 1; and a host cell expressing a recombinant construct, the construct comprising the nucleic acid of claim 1, or the construct encoding a protein molecule comprising the binding domain of a T cell receptor specific for an MHC-peptide complex; with a pharmaceutically acceptable adjuvant, carrier, diluent, or excipient.